

IN THE SPECIFICATION

Presented below are specification changes showing the changes made.

Please replace paragraph [0030] with the following amended paragraph:

[0030] A bilayer film for lift-off technique involves depositing a bilayer resist film on the base structure, imprinting the bilayer film, descumming the film, deposition of a metal film stack, and lifted off of the bilayer film and the above deposited film stack. The bilayer film technique provides undercutting of one of the resist layers to produce a non-continuous deposited magnetic film stack. The magnetic film stack deposited above the bilayer film may be subsequently lifted off by selectively etching one or both of the resist layers of the bilayer film, resulting in a DTR patterned magnetic film stack on the base structure.

Please replace paragraph [0035] with the following amended paragraph:

[0035] In an alternative embodiment, base structure 10 may be composed of a substrate 15 having other layers disposed thereon, for examples, a soft magnetic film. Layer 20 may represent a soft magnetic film or a soft magnetic film disposed over a NiP layer. A soft magnetic film may be used to achieve the proper magnetic properties associated with perpendicular magnetic recording. The soft magnetic film ~~25~~ 20 may be a layer of ~~iron-copper-nickel~~ iron-cobalt-nickel (FeCoNi) material. Other materials that may be used for the soft magnetic film include ~~copper-iron~~ cobalt-iron (CoFe) nickel-iron (NiFe), and alloys thereof. Soft magnetic films and materials that may be used for

manufacturing a soft magnetic film are well known in the art of magnetic recording disks; accordingly, a detailed discussion is not provided. The soft magnetic film may be polished and/or textured. The soft magnetic film may be textured with a pattern, by various methods such as mechanical texturing using fixed or free abrasive particles (e.g., diamond). Alternatively, other types of texturing methods, such as laser texturing, may be used to texture the soft magnetic film. In yet another embodiment, a thin NiP layer may be disposed on top of the soft magnetic film and polished and/or textured. In yet another embodiment, the soft magnetic film may be composed of one or more soft magnetic underlayers and one or more Ru interlayers disposed between soft magnetic underlayers.

Please replace paragraph [0045] with the following amended paragraph:

[0045] In step 170, a lift-off of magnetic film stack 50 is performed using a solvent that etches at least the bottom resist layer 32. The lift-off leaves the film stack 50 in discrete areas above base structure 10, as illustrated in Figure 1E. ~~The~~ This produces a DTR patterned magnetic recording disk having a non-continuous protection layer. In an alternative embodiment, one or more protection layers may not be included in film stack 50 but, rather, deposited after lift-off of the film stack 50. A lubrication layer 59 may be placed on top of the entire surface of the disk, as discussed in relation to Figures 5A and 5B below, to further improve tribological performance. The lubrication layer 59 may be composed of, for examples, a perfluoropolyether or phosphozene lubricant. Alternatively, other lubricant materials may be used for lubrication layer 59. The

lubrication layer 59 may be disposed on the disk, step 175, using various methods, for examples, spin coating, dip coating, spin-dip coating, etc. Lubrication layers and materials are known in the art; accordingly, a detailed discussion is not provided.

Please replace paragraph [0049] with the following amended paragraph:

[0049] Static sputter systems are available from manufacturers such as Intevac Inc. of Santa Clara, California, Balzers Process Systems, Inc. of Alzenau, Germany. With in-line sputtering systems, disk substrates are loaded on a pallet that pass through a series of deposition chambers ~~the~~ that deposit films successively on the substrates. In-line sputtering systems are available form Ulvac Corp. of Japan. It should be noted that other temperatures, pressures, biases, and thickness than provided in the exemplary embodiment above may be used, in particular, when other systems and methods are used.

Please replace paragraph [0055] with the following amended paragraph:

[0055] Stamper 90 is then pressed into the resist film 730, step 835. In one embodiment, stamper 90 is separated from resist film 730, step 840, and then cooled after separation, step 843. An imprinted pattern of trenches areas (a.k.a., recessed areas, grooves, valleys, etc.) and plateaus (a.k.a., raised areas) is thereby formed in the resist film ~~830~~ 730 (as illustrated in Figure 7B). The separation of stamper 90 from resist film 730 before cooling may facilitate the separation process and result in less damage to the imprinted pattern in resist film 730.

Please replace paragraph [0058] with the following amended paragraph:

[0058] Stamper 90 is then pressed into the resist film 730 at the imprinting temperature, step 835. The stamper 90 is then separated from resist film 730 after imprinting, step 840. In one embodiment, the resist film 730/base structure 15 may be removed from close proximity to stamper 90, step 841, and then cooled to a temperature below the glass transition temperature of resist film 730. An imprinted pattern of trenches areas (a.k.a., recessed areas, grooves, valleys, etc.) and plateaus (a.k.a., raised areas) is thereby formed in the resist film 830 730 (as illustrated in Figure 7B).

IN THE DRAWINGS

The attached drawing sheet includes a change to Figure 1B. The sheet which includes Figure 1B replaces the original sheet including Figure 1B. The figure has been amended to add a reference numeral. It is respectfully submitted that the proposed amendment to the drawing does not add new matter. Support for the amendment may be found in the specification at paragraph [0038].

Attachment: Replacement Sheet
Annotated Sheet Showing Changes